

COMPANION GAMING: IMPROVING THE QUALITY OF GAMING
EXPERIENCES THROUGH INTERCONNECTED GAMEPLAY

A Thesis

by

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ABSTRACT

In recent years, video game publishers and developers such as Ubisoft, Bioware, Microsoft, Capcom, Wideload Games, and NeatherRealm have all attempted to increase brand engagement by means of increased interconnectivity between games of the same franchise, a form of gameplay called companion gaming. In 2011 Chris Early, one of the pioneers of companion gaming, set forth seven principles defining the qualities that exemplify companion game design. This study offers a history of companion gaming, an explanation for how companion gaming improves the quality of the gaming experience, and a modification and extension of the aforementioned principles. Through the use of an analysis of pre-existing companion games, user studies of said companion games, and interviews with industry professionals who have experience working on companion games, a determination of best practices in developing connected gameplay experiences is defined in the form of the “Companion Gaming Design Principles.” Along with the unification of existing knowledge on companion games pertaining to different techniques for designing connectivity, companion game/base game platform combinations, and examples of what has come before, these principles will enlighten developers and publishers wishing to create companion gaming experiences in the future by highlighting the most important aspects of companion game design and how each can affect the user’s experience.

DEDICATION

This thesis is dedicated first and foremost to God, who has blessed me in countless ways throughout this research, and to my fiancée Emily who has lent me her strength, time, and superb editing skills for the duration of this research.

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CHAPTER I

INTRODUCTION

Since the rise in popularity in video gaming in the late 1960's and early 1970's, video games have been singular entities available to experience on one device at a time. Players would purchase a game, insert the cartridge or disk into a console or computer, then sit in one place (be it in front of the television, computer console, or arcade) and play until the game was completed. The same does not hold true today [20]. With the increase in popularity of mobile and social media in recent years, new approaches to gaming (gaming on Facebook, Apple and Android products such as phones and tablets, connectivity between toys and games, etc.) are being explored to enhance the quality of the gaming experience. The phenomenon unofficially dubbed "companion gaming" by Chris Early, Vice President of Digital Publishing at Ubisoft, is just one of these explorations.

The term "companion gaming" is used by Early to describe the connectivity between two separate video games of the same brand [20]. This connectivity is designed to increase brand engagement by the consumer, encouraging them to immerse themselves in the franchise world for longer periods of time. An example of this kind of connectivity would be the relationship between the games *Assassin's Creed: Brotherhood* and *Assassin's Creed: Project Legacy*. Both games are a part of the company's immensely successful franchise, *Assassin's Creed*, but both games were not developed for the same platform. A video game platform is any device on which games

can be played. In this case, *Brotherhood* was developed for video game consoles such as Microsoft's Xbox 360 and Sony's Playstation 3, while *Project Legacy* was developed for use on the social media mogul, Facebook. The games were released a month apart from each other, with *Project Legacy* being released first.

The idea behind developing these two games was that *Brotherhood*, the console game, would act as the base game, meaning the player would experience the main storyline and game developments through this game specifically. *Project Legacy*, an entirely separate game for an entirely separate platform, would act as a companion to *Brotherhood*. *Project Legacy* would “speak” to *Brotherhood* behind the scenes (this process is explained further in Chapter IV) while the player was playing, so that whatever the player accomplished in *Project Legacy* would affect the gameplay experience in *Brotherhood*. The base game, companion game, and the connectivity between the two are the key elements that make up the companion gaming experience. For Ubisoft, the goal in creating this experience was to allow players to continue their gaming experience after they had shut off their home console system. They could now play their favorite brands on the go and away from home [20].

Chris Early is one of, if not the only, person who has attempted to identify the components that make up a successful companion gaming experience. Using his research as a springboard, I investigate how companion gaming helps to improve the quality of gaming experiences.

In order to investigate how companion gaming would improve the quality of the gaming experience, interviews were held with industry professionals who have had

experience developing companion games. User studies were also conducted in order to gather information from the perspective of the players. As a case study, I designed and developed a companion gaming experience of my own with a team of students in the Visualization and Computer Science departments at Texas A&M University.

Based upon this research, a list of principles I call the “Companion Gaming Design Principles” was established that can be adopted by other game developers and game researchers and used in conjunction with elements of good game design in order to create the most effective companion gaming experiences. This will contribute to the large role that companion gaming will play as it becomes more prevalent in coming years in the gaming industry. Many publishers and developers are presently working on companion gaming experiences for next-generation consoles, and if they can look to a source for unified information about what came before, as well as follow a list of best practices for companion game design, this will allow for more improved companion gaming experiences.

CHAPTER II

BACKGROUND RESEARCH

Companion gaming by its definition is a type of relationship between video games in which there exists connectivity that allows for gameplay in one to directly affect the gameplay in the other. The earliest occurrence of this relationship as we know it today was published in 1999 by Nintendo for their game, *Pokemon Stadium*, and this kind of connectivity continues to be prevalent today. Developers of companion games utilize technologies such as cloud computing and augmented reality components, and seek to use them and other techniques to increase player engagement with their brands.

II.A. Cloud Computing

Cloud computing is a colloquial expression that is generally used to define a “model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (i.e., networks, servers, storage, applications, and services) [44].” The “Cloud”, as the aforementioned pool is commonly referred to, is essentially a massive data center that allows for data transfer across different devices (Figure 1). It can be used as a storage system, mass distribution of digital content, and for IT services. “Web-based email, social networking, and online games are all examples of what are increasingly called cloud services, and are accessible through browsers, smart-phones, or other ‘client’ devices [5].”

The “Cloud” continues to grow as society develops into a cloud computing culture. People use it for “shopping, banking, selling, collaborating, communicating, [and for] being entertained [16].” More recently, it has begun to be used for companion gaming. Utilizing cloud computing allows for connectivity to be achieved between devices of varying platforms more easily. This will be discussed further in Chapter IV.



Figure 1
3D diagram of cloud computing [7]

II.B. Consumer Engagement

One way that companies have been trying to improve consumer engagement recently is that of the use of the second screen. An example of this would be the *HBO GO* app from the HBO channel. The *HBO GO* app allows users to experience interactive features on their tablets while watching shows on the HBO channel. For instance, when watching the series *Game of Thrones*, users can use *HBO GO* on their tablet to view

behind-the-scenes videos of the show, cast/crew commentary, set photos, and more while the show is airing. Only those with the app can view the extra content, and only while watching the show. Another example of the use of second screen technology is *Zeebox*, a social networking and social TV app available for tablets and phones. Similar to *HBO GO*, *Zeebox* offers information related to select TV programming in real time, so that while a show is airing, users can “look up more information about the shows they watch, and even goes so far as to pitch up some of the products you see in the show or during commercials (Carlin SXSW).” It also features chat rooms and social media sharing services so users can interact with their friends about the shows they are watching.

The aforementioned apps are evidence that support the statement that consumers of media enjoy engaging more often with the brands they love, and in different ways. According to Nielsen, 46% of smartphone owners and 43% of tablet owners are utilizing their second screen while consuming media on a daily basis [1].” Companion gaming is a foray into the kind of engagement that TV programming fans are experiencing presently.

II.C. A Brief History of Companion Gaming

Ubisoft was not the first company to attempt the creation of a companion gaming experience. In 1999, Japanese game developer HAL Laboratory created the game *Pokemon Stadium* for the Nintendo64 console to act as a companion to the already existing *Pokemon Red*, *Blue*, and *Yellow* games for the handheld mobile platform, Game

Boy. Players were able to use their “Pokemon” (collectible monsters in the game) from their Game Boy *Pokemon* games when they inserted the Game Boy cartridges into the “N64 Transfer Pak” that came with *Pokemon Stadium*. They could then increase their Pokemons’ levels through battles and mini-games, and also unlock new Pokemon that could be transferred back to the Game Boy games. This kind of increased brand engagement through connectivity between games was the first of its kind. A sequel, *Pokemon Stadium II*, was released a year later in 2000 alongside sequels to the Game Boy *Pokemon* games, and also utilized this same kind of connectivity.

In 2008, Chris Early aided British game developer Lionhead Studios in developing a companion gaming experience for their game *Fable II*. *Fable II Pub Games* is a game created for Xbox Live Arcade (a video game download distribution service) in order to give players an opportunity to build a starting advantage for their experience in the base game, *Fable II* [8]. *Pub Games*, released two months ahead of *Fable II*, offered players a chance to win in-game currency and items that could then be transferred over to their *Fable II* character when it was released (Figure 2). In addition, the web game *A Hero’s Tale* was also developed as a companion game to *Fable II*, but more importantly, it marked the first time a companion game gave the players a starting advantage while also concurrently extending the story. *A Hero’s Tale* acted as a prologue to the base game, and its release one month ahead of *Fable II* allowed the player to learn more about the main character’s backstory before diving into the base game, in addition to gaining rewards [18]. It was during the development of these games that Early first

coined the term, “companion gaming.” These games are examples of the earliest form of companion gaming.



Figure 2
Screenshot of *Fable II Pub Games* [12]

Fable III, the next installment in the *Fable* franchise, had two companion games released along with it as well that offered players the chance to reap benefits from their companion gaming experience while on the go. *Fable: Coin Golf* was released for Windows Phone and allows players to earn in-game currency while away from their consoles (Figure 3). Whatever cash the player earns in *Coin Golf* is allotted immediately to the character in the player’s base game [17].

The first (and one of the only) time augmented reality was used in companion gaming was seen in *Fable III: Kingmaker*, the second companion game released for

Fable III, also on Windows Phone in 2010. Unlike *Fable: Coin Golf*, *Kingmaker* utilized the real, physical world in its gameplay [14]. Upon first-time play, players were required to pick sides between two in-game factions. They were then required to place virtual flags in real world locations by pressing a button in the mobile game [14]. The game used GPS data to determine where virtual flags had been planted, and then the game would claim the “territory” in the immediate vicinity of the flag for the player’s in-game faction. Players were rewarded for planting flags by receiving in-game currency that could then be redeemed by the player in the base game, *Fable III* [14]. The players in the faction with the most territory by the time *Fable III* was released one month later won. The game was then taken off the market and made unavailable for purchase, having served its purpose according to the developers, which was to build up hype for the release of *Fable III*.



Figure 3
Several screenshots of *Fable: Coin Golf* [11]

The game *Toy Soldiers* (released in 2009 for Xbox Live Arcade) is an action and strategy game developed by Signal Studios. *Toy Soldiers*' companion game, *Match Defense*, was released on Facebook. Its release marked the first time an Xbox Live Arcade game was linked to Facebook for a companion gaming experience. *Match Defense* allows players to interact with their Facebook friends and gain in-game bonuses that can be redeemed in the base game (Figure 4). *Toy Soldiers* and *Match Defense* both received extremely positive reviews [43].



Figure 4
Screenshot of *Match Defense* [29]

The year 2010 saw releases such as *Dead Rising 2*, developed by Capcom, and the aforementioned *Assassin's Creed: Brotherhood*, developed by Ubisoft. *Dead Rising 2*'s companion game, *Dead Rising 2: Case Zero*, allows the player to transfer any in-game currency, items, or experience points gained over to *Dead Rising 2* once it was

released (Figure 5). *Case Zero* acted as a prologue for the base game, so that those who played *Case Zero* would already be familiar with the main character and his plight to cure his daughter of a deadly virus before playing *Dead Rising 2*.



Figure 5
Screenshot of *Dead Rising 2: Case Zero* [6]

Ubisoft's endeavor with the *Assassin's Creed* games doubled as an experiment to determine if there was a large gaming market active on Facebook, which they found to be the case [4, 9]. There was a strong overlap between those who played the base game, *Brotherhood*, and those who played the companion game, *Project Legacy*, as Ubisoft's research determined that 80% of gamers playing *Project Legacy* on Facebook also played *Brotherhood* on consoles [4, 9].

Not every developer has seen the same results that Ubisoft has with their *Assassin's Creed* companion gaming experience. BioWare, the developer behind *Mass Effect 3* and *Dragon Age 2* saw “little to no overlap between the console audience and the companion game audience [20]”, despite the respective companion gaming experiences for both franchises being well made and positively received by audiences and critics alike [11, 15]. *Mass Effect Datapad* and *Mass Effect Infiltrator* are both companions to the base game, *Mass Effect 3* (Figure 6). *Datapad* allowed players access to story elements, lore, and details of the *Mass Effect* universe. It also allowed players to interact with the “Galaxy At War” gameplay system through various mini-games. The more the player interacts with this system, the more the player gains advantages in the base game. *Mass Effect Infiltrator* provides more direct benefits to gameplay by allowing players to gain in-game items and experience points that can then be transferred over to *Mass Effect 3* [20], similar to previous developers’ efforts in *Assassin's Creed: Brotherhood* and *Fable III*. It also allows interaction with the “Galaxy At War” system.



Figure 6
Screenshot of *Mass Effect Infiltrator* [28]

BioWare's other companion gaming attempt was *Dragon Age: Legends*, the companion game to *Dragon Age II*. *Legends* was a turn-based Facebook game that allowed players opportunity to unlock in-game item rewards in the base game. It also added a social component that allowed players to interact with their friends online and share scores [24].

Marvel: Avengers Alliance is a game developed by Playdom and released on Facebook in March of 2012. Its companion game, *Marvel: Avengers Initiative* was released on mobile devices, and it marked the first time a Facebook game and mobile game interacted in this way. The two games share items and experience points, and *Initiative* expands the story set in place in *Alliance*.

In April 2013 *Injustice: Gods Among Us* and its iOS counterpart of the same name were released. A fighting game from NeatherRealm, the same studio behind *Mortal Kombat*, this companion gaming experience allowed for data transfer between the base game and companion game, and vice versa. Players can unlock costumes for characters, extra currency to spend on character boosts, and backgrounds and icons that can be used to customize the aesthetic appearance of players online IDs. They can obtain these rewards by completing certain tasks in the games, such as “Complete 10 battles in *Injustice* mobile” and “Win one ranked match online in *Injustice* console edition.”

Another companion game released in 2013 was *BioShock Infinite: Industrial Revolution*. It is a web game that was only made available to those who pre-ordered its base game, *BioShock Infinite*. Players were able to unlock in-game currency and transferrable item boosts that can be used to varying effect in the base game. The companion game is set to deactivate 6 months after the base game’s release.

II.D. Augmented Reality/Virtuality Companion Gaming

An extensive review of the history of augmented reality is beyond the scope of this research. However, a few significant examples of augmented reality companion games will be discussed. Augmented reality is a live view of a physical, real-world environment whose elements are altered by computer-generated sensory input such as sound, video, graphics, or GPS data. In essence, augmented reality combines the real world and virtual reality in unique and innovative ways.

Many augmented reality games consist of interacting with the physical environment by virtual application. The previously mentioned *Fable III: Kingmaker* utilized this approach, with players planting virtual flags in physical environments (Figure 7). In 2010, Ruffian Games' *Crackdown 2* was developed and along with its companion game for Windows phone, *Crackdown 2: Project Sunburst*. The companion game allows players to create their own tower defense games in real world environments using Microsoft's Bing maps [15]. However, *Project Sunburst* was pulled from the Windows Marketplace soon after its release due to poor consumer response [39].

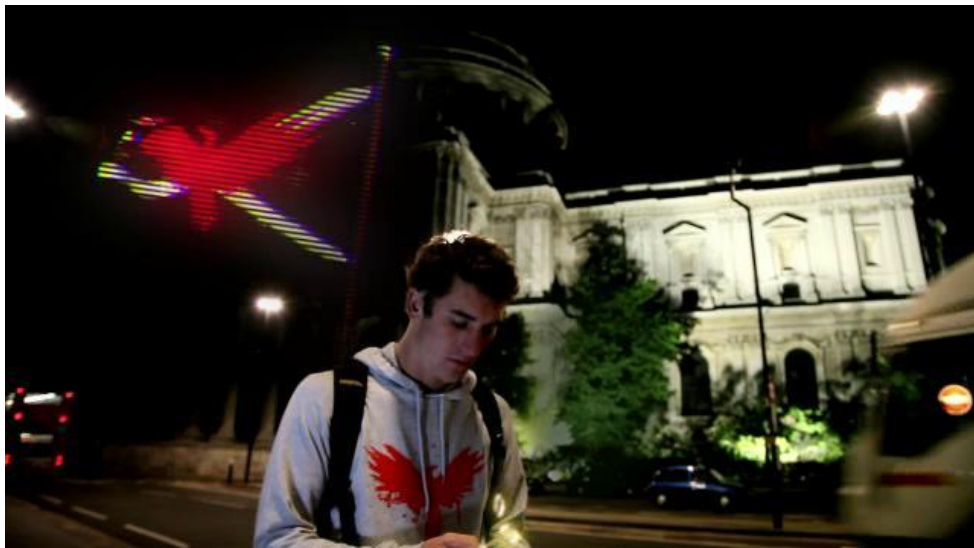


Figure 7
Dramatization of a player planting a virtual flag in a physical environment in *Fable III Kingmaker* [13]

Some augmented reality games interact with virtual environments by physical application. This is typically referred to as “augmented virtuality” [30]. Activision's *Skylanders* uses this approach by means of physical toys with RFID chips installed in

them. The player places any one of the more than 32 character figures on the "Portal of Power" accessory that is required for connection (Figure 8). The accessory then reads the specific chip pertaining to that figure via Near Field Communication (NFC). The character then appears in the virtual game, ready to be played by the player. Whatever attribute changes occur in game are then saved on the figure's RFID chip for later uses. These attribute changes include experience points, health, and powers.



Figure 8
Skylanders toys on the “Portal of Power” accessory [41]

Skylanders is an immensely successful franchise for Activision. As of this writing over 30 million copies of the game have been sold, with a total profit of \$500 million [25, 38]. Toy sales were two to three times higher than was originally expected by Activision [21]. The success of *Skylanders* inspired Disney to develop their own augmented virtuality experience, *Disney Infinity*. Disney’s foray into augmented

virtuality is set to release in late 2013, and will incorporate many of the same principles that led to the success of *Skylanders*, including figurines that can be synthesized within the game.

II.E. Chris Early's Seven Principles

In a presentation at South By Southwest¹ in March of 2011, Chris Early attempted to explain what goes into making a good companion game. In the presentation, Early stressed the importance of “brand engagement,” in that it leads to more loyalty on the consumer’s part to the franchise, and by extension the production company of the brand. Early’s observations and research led him to create seven principles by which he recommended game developers look to when designing their companion gaming experiences [8]. To summarize:

1. **Extend the Story:** The companion game should extend the lore/story beyond base game.
2. **Concurrent Engagement:** The companion game and the base game should engage the player during the same period of play.
3. **Continual Engagement:** The companion game should continually engage the player over time.

¹ An annual set of film, interactive, and music festivals and conferences that takes place in Austin, Texas.

4. **Create Residual value:** The companion game should offer value to the player that can be transferred to the base game.
5. **Coherent Advancement:** Any progress made in the companion game by the player should be evident in the base game.
6. **Standalone Gameplay:** The companion game should be able to stand on its own, apart from the base game.
7. **Platform Diversity:** The companion game should be on a separate platform than the base game.

Early stated that up until recently the only way to gain more brand engagement for specific franchises was through distribution of expansion packs to consumers or development of sequels. This is not ideal because there is no concurrent reinforcement of engagement and there are long periods of time between engagements. Breaks in engagement lead to breaks in loyalty, and thus makes it that much harder for developers to distribute new material. Therefore, concurrent and continual engagement is necessary to secure loyalty in consumers [8].

According to Early, companion gaming is a great way to build the same kind of loyalty in video games that is found in sports like baseball [20]. That kind of loyalty is attractive, because it means that the fans will always keep coming back for more of what the publisher has to offer, with no break in engagement. The sport of baseball offers its fans both concurrent engagement (meaning different kinds of engagement are happening simultaneously) and continual engagement (meaning it is ongoing) and game publishers

would benefit from harnessing this kind of engagement to revolve around fictional video game universes instead of sports teams. This will be expounded upon later in this chapter.

Creating residual value is a principle that many developers have used in companion gaming as incentive to play the game. Many of the previously mentioned examples of companion games grant the player item bonuses (i.e., weapons, armor, statistic booster items) or in-game currency that will help the player while playing the base game [8]. In addition to the residual value, players need to know that by gaining these bonuses or by just playing the companion game, they are advancing in the story/experience of the base game. If the player doesn't feel that by playing the companion game they are advancing in the base game, they will cease to play the companion game altogether.

At the same time, companion games must be able to stand on their own [9]. If publishers assume that players will play both games, they risk losing much of their targeted audience. If the companion game is not a fun and exciting game all on its own or is substandard to the players' expectation, the player could potentially be turned off to the franchise as a whole [20]. This would be detrimental to the publisher's intentions.

Platform diversity is a principle that may seem odd as an essential element to designing a companion gaming experience, but in order for brand engagement to be concurrent as well as continual, the ability to engage on multiple platforms is beneficial. The introduction of mobile devices into the gaming scene, as well as on Facebook and other social networking outlets, provides publishers and developers with an opportunity

to engage their players on the go. In the case of *Dead Rising 2*, Capcom created their companion game, *Case Zero*, for Xbox Live Arcade. The game was a success [8], and it did extend the story and offer residual value [31], but because there was no platform diversity (the base game, *Dead Rising 2*, was released on Xbox as well), players were not able to extend their gaming experience beyond the living room.

While Early's principles are by no means official or widely accepted as the only way to go about creating companion games, they do offer insight as to what makes a companion gaming experience successful. Early's goal in creating these principles, was to provide a "best practices" checklist for developing companion games, so that they "keep players engaged with the brand and enable them to really dig into the brand that they love [10]."

As mentioned previously, companion gaming could very well be the avenue with which to create the same sort of "fandom" for fictional video game universes that surround sports teams [20]. Early states:

Some guys...can quote stats to you, they watch every game on TV, they listen to it on the radio at work, they go to games a bunch, and they wear the team's colors. That's a very engaged fan. There is a lot for them to do. Then there are those people who maybe only watch the games...on television, or read about the games in the paper [20].

Companion gaming has the potential to allow fans of video games the same kind of options that sports fans have [20].

It should be noted that this research does not cover what I refer to as “companion apps” in extensive detail. Companion apps, which are a sub-genre of companion games, are applications or services designed for the same purpose as companion games: to increase brand engagement. Typically they can be found on mobile devices, however some can be found on the web as well. Companion apps, however, do not fall under the “companion games” category because they typically are not designed as singular, standalone experiences. Rather, they are tethered to the base game in a way that makes them impossible to play without playing the other. For example, rather than utilizing the “starting advantage” strategy (similar to companion games like *Fable II: Pub Games* and *Dead Rising 2: Case Zero*) in which the player can transfer in-game assets such as items, experience points, and currency, EA Sports’ *NHL 13*’s companion app focuses mainly on providing opportunity for players to engage in the lore of the game with their friends. Simply titled *NHL 13 Companion App* and released in September of 2012, it builds off of the success of the “GM Connected” and “Hockey Ultimate Team” modes in *NHL 13*, as well as pre-existing games such as “fantasy hockey,” a fantasy sport where players build fictional teams that compete with each other based on the statistics generated by professional hockey players or teams. Players can trade team members to their friends, use the “League Messaging” system to send messages to one another, and compare stats (Figure 9).



Figure 9
“GM Connected” mode for *NHL 13* [34]

Released in November of 2011, *Call of Duty: Elite* is an app in which players can invite friends to matches in the base game, *Call of Duty: Modern Warfare 3* and receive downloadable content from the publisher. Similar to *NHL 13 Companion App*, though, this game cannot stand on its own apart from the base game.

As a result of the narrow scope of most companion apps, they are not a large component of this research. This does not diminish the effectiveness of successful companion apps, however, as they provide “a good way to extend the player’s engagement [10].”

CHAPTER III

METHODOLOGY

In order to determine how companion games improve the quality of the gaming experience, I have performed an extensive analysis of existing companion games. I have compiled information into a chart that lists most existing companion games as well as specific attributes and features that are found in each game (Table 1). These attributes include platform, base game, date released, and type of connectivity. Features include in-game currency transfer, item transfer, extension of story, points/experience transfer, and social component (Table 2). These charts were used as a basis for the research conducted to determine more information regarding the games listed in the chart. Interviews took place with industry professionals who have had experience creating companion games, and user studies were conducted with players on the games themselves. A case study of an original companion gaming experience I created with a team was also conducted as an application for this research.

Table 1
Companion Game Analysis Chart

Companion Game	Platform	Base Game	Date Released (in relation to base game)
A Hero's Tale	Web	Fable II (2008, Xbox 360)	September 2008 (1 month prior)
Assassin's Creed: Project Legacy	Facebook	Assassin's Creed: Brotherhood (2010, PS3/Xbox 360/PC/Mac OS X)	October 2010 (1 month prior)
Avengers Initiative	Mobile Devices	Marvel: Avengers Alliance (2012, Facebook)	September 2012 (6 months later)
BioShock Infinite: Industrial Revolution	Web	BioShock Infinite (2013, PS3/Xbox 360/PC/Mac OS X)	October 2013 (5 months prior)
Crackdown 2: Project Sunburst	Windows Phone	Crackdown 2 (2010, Xbox 360)	December 2010 (5 months later)
Dead Rising 2: Case Zero	Xbox Live Arcade	Dead Rising 2 (2010, PS3/Xbox 360)	August 2010 (1 month prior)
Dragon Age: Legends	Facebook/Google+	Dragon Age 2 (2011, PS3/Xbox 360/PC/Mac OS X)	March 2011 (later the same month)
Fable II: Pub Games	Xbox Live Arcade	Fable II (2008, Xbox 360)	August 2008 (2 months prior)
Fable III: Kingmaker	Windows Phone	Fable III (2010, Xbox 360)	October 2010 (earlier the same month)
Fable Coingolf	Windows Phone	Fable III (2010, Xbox 360)	March 2011 (5 months later)
Ghost Recon Commander	Facebook	Ghost Recon: Future Soldier (2012, PS3/ Xbox 360/PC)	May 2012 (same day)
Injustice: Gods Among Us iOS	Apple Mobile Devices	Injustice: Gods Among Us (2013, PS3/Xbox 360/Wii U)	April 2013 (earlier the same month)
Mass Effect Infiltrator	Mobile Devices	Mass Effect 3 (2012, PS3/Xbox 360/PC)	March 2012 (same day)
Match Defense: Toy Soldiers	Facebook	Toy Soldiers (2010, Xbox Live Arcade; 2012, Windows Phone)	February 2010 (1 month prior to XBLA release)

Table 1 Continued

Companion Game	Extension of Story	In-Game Currency Transfer	Item Transfer	Experience Points Transfer	Social Component
A Hero's Tale	Yes		Yes		
Assassin's Creed: Project Legacy	Yes	Yes	Yes		Yes
Avengers Initiative	Yes		Yes		
BioShock Infinite: Industrial Revolution			Yes		
Crackdown 2: Project Sunburst			Yes		
Dead Rising 2: Case Zero	Yes	Yes	Yes	Yes	
Dragon Age: Legends	Yes		Yes		Yes
Fable II: Pub Games		Yes	Yes		
Fable III: Kingmaker		Yes			Yes
Fable Coingolf		Yes	Yes		
Ghost Recon Commander		Yes	Yes	Yes	Yes
Injustice: Gods Among Us iOS		Yes	Yes		
Mass Effect Infiltrator	Yes		Yes		
Match Defense: Toy Soldiers			Yes		Yes

III.A. Interviews

The interviews that took place were set up over email. Industry professionals representing companies such as Ubisoft, Capcom, Wideload Games, Microsoft, and Bioware were contacted and sent requests to be interviewed about their companion games. Interviews took place either over phone or via Skype and lasted anywhere in the range of 30 minutes to one hour. Interviews were recorded for review later on. Topics that were covered in the interview questions included but were not limited to the design process of companion games, connectivity between games, best practices of companion game design, marketing strategies, and the future of the gaming industry (See Appendix A for a list of interview questions).

III.B. User Studies

The user studies environments were set up with a large flat-screen TV, an Xbox 360 game console and controller, a laptop, a table, and chairs (Figure 10). An Apple iPad was also provided if it was necessary for the companion gaming experience. Participants in the user studies were volunteers, recruited via personal interaction, over email, or through Facebook messaging with a pre-established recruitment request (See Appendix B). Those recruited were people in the 18-25 age range who actively participate in playing video games and represented the typical video game publishers' target audience. There was an average of 3 participants per user study, with five games being tested. 14% of participants were female, and 86% were male. Most participants had played the base

game in question prior to the user study, but had not yet experienced the connectivity to its companion game. This allowed for little to no learning curve for each user, and allowed the participants to focus mainly on the connectivity. Before commencing, participants were required to sign a consent form, stating that they knew the risks involved in playing video games and allowed photographs to be taken of them during the study. No personal information was provided, so participants will remain anonymous.



Figure 10
Participant in user study setting

Participants were allowed one hour each to sit in the testing environment and play through as much of the companion gaming experience as possible. They were allowed to end their play session at any time, but after they were finished they were required to fill out an online survey concerning their experiences and opinions while

playing the companion game (See Appendix C for a list of survey questions). Their responses were recorded and analyzed to determine patterns and trends in user experience and opinion of success.

During the user studies, careful observations were made for verbal and physical responses by the participants. If a participant exclaimed excitedly when experiencing the connectivity between the base game and companion game, this was recorded. The same occurred for negative responses, such as frustration when the connectivity was taking a long time, or when the connectivity failed to occur. Observations were made for other behavior as well, such as participants checking their watches, fidgeting, etc. Social and behavioral cues helped give an idea as to what the player was thinking and feeling during their experience of the companion game.

III.C. Analysis

After the interviews and user studies were conducted, the data was analyzed, and by categorizing the information into groups pertaining to certain topics, such as “platform” and “connectivity”, I was able to view patterns and similarities between the various games more easily. Early’s Seven Principles were also used in the analysis in order to determine if the games abided by them or not, and how closely. By doing this, conclusions were able to be drawn in determining the effect that following Early’s principles can have on the companion gaming experience. This analysis can be found in the next chapter.

III.D. Case Study

Once the analysis was completed, work began on my own companion gaming experience, with the intention of testing my findings on a brand new, original game. Development of the base game, a mobile sci-fi adventure game for the iPad entitled *Titan, Ph.D* was completed in May of 2013. Based on my research, I implemented Early's principles to design and create a companion game for my base game. This game utilized augmented virtuality components in its design and was completed in July of 2013.

Upon completion I conducted a user study for my companion gaming experience that took place in the same form as the previously mentioned user study for existing companion gaming experiences. The same survey form was given to determine player experience and opinion on the game, what components in the game the players thought were successful, and if the player felt engaged during gameplay.

CHAPTER IV

ANALYSIS OF DATA

This chapter analyzes the qualitative data gathered during user studies, interviews with industry professionals, and personal observations. Each game's use of Early's Seven Principles will be discussed in detail, as well as different uses of various types of connectivity and platform combinations.

Based on the data collected, it can be determined that there have generally only been two techniques utilized when creating the connectivity used in companion gaming. Those two techniques are the **Direct Technique** and the **Cloud Technique**. The Direct Technique is typically used when the companion game and base game are both played on the same platform. There is no centralized server that data needs to go through before being transferred from one game to another (at least from the layman's outward perspective). In contrast, the Cloud Technique is typically used when the companion game and the base game are played on different platforms. There is usually a separate, centralized cloud server that data is transferred to before it can be transferred to one game or the other.

There are four types of platform combinations that have been used as of the time of this research for companion game-base game relationships: console-console, console-web, web-mobile, and mobile-console.

IV.A. Analysis of Early's Seven Principles Application

IV.A.1. *Fable II Pub Games*

According to Chris Early, the release of *Fable II Pub Games* in 2008 marked the first time companion gaming (as it is known today) was published and delivered to consumers. When asked if Lionhead Studios looked to any reference when developing this kind of connectivity for the first time, Early's answer was "no, we just wanted to get players interested in *Fable II* before its release [9]." Based upon information gathered during user studies for *Fable II Pub Games*, this goal was achieved.

Observations about the companion game from user study participants were mostly positive, and responses included, "the game was very easy to follow and get started with," "it was slightly addicting," and "the companion game...was a fun time killer." When asked to rate the game on a success scale of 1-10, with 10 being the highest, one user rated it as a 10, saying, "it was straightforward and easy to play. It was rather addicting and showed worthwhile benefits in the actual game itself...it kept you engaged and striving to do better."

Since Chris Early was heavily involved in the development of *Fable II Pub Games*, it is not surprising that the game follows all but one of his seven principles. The only principle that was not present in the design of this game was "Platform Diversity," as both games were created to play on the Xbox game console. Two-thirds of the user study participants thought that the lack of platform diversity in no way harmed this companion gaming experience. They didn't mind the shared platform, believing that it

“made things easier and faster to switch from one to the other. The data transfer was simpler as well.” The rest of the participants didn’t think the shared platform was good, stating that sharing the same platform caused them to want to play one game over the other depending on which one was more fun for them, defeating the purpose of the companion connectivity.

IV.A.2. *Dead Rising 2: Case Zero*

Capcom’s *Dead Rising 2: Case Zero* is another companion game released on XBLA for a same-platform companion gaming experience with *Dead Rising 2*. Christian Svensson, Senior Vice President of Capcom, helped to develop the vision behind the connectivity between the two games. When thinking about the relationship between *Dead Rising 2* and *Case Zero*, Svensson said the developers wanted to create a game that would be “its own self-contained story that is completely separate, that is not a carved out part of the main game, but provides context and back story that leads into the main game [42].” In this regard *Case Zero* fulfills the “Extend the Story” and “Standalone Gameplay” principles very well, as the game acts as a complete standalone prologue to *Dead Rising 2*. One participant in the user study for this game stated that *Case Zero* was “very effective as a ‘pre-story’ to the original game.”

Case Zero also follows the “Coherent Advancement” and “Create Residual Value” principles, in that after completing the story the player can transfer over any experience points, items such as weapon combination cards, or in-game currency they may have gained from *Case Zero* into *Dead Rising 2*. This gave players an advantage

once they commenced playing the base game a month after the companion game was released. “Potentially starting with a large variety of combo cards and starting with a higher level in the base game is very appealing and has a high value,” notes one user study participant. This companion gaming experience does not follow three of Early’s principles, lacking “Concurrent Engagement,” “Continual Engagement,” and “Platform Diversity” in its design.

In spite of having followed four out of the seven principles, Svensson stated that he would not consider *Case Zero* to be included in the “companion gaming” category simply because of the lack of platform diversity [42]. Chris Early, however, disagrees and believes the *Dead Rising 2* companion gaming experience to be a good example of the increased brand engagement that is counterpart to companion gaming [9].

IV.A.3. *Assassin’s Creed: Project Legacy*

The Facebook companion game *Assassin’s Creed: Project Legacy* was released to help build anticipation for Ubisoft’s 2010 release, *Assassin’s Creed: Brotherhood*, as well as increasing brand engagement for the *Assassin’s Creed* franchise.

Chris Early was also involved in the development of this companion gaming experience (though acting in more of a consulting role), so it is not unexpected that the game follows nearly all the principles perfectly. In the base game, *Assassin’s Creed: Brotherhood*, the player can send members of an in-game assassin’s guild on missions that take a specific amount of real-world time to complete (Figure 11). The more advanced in level the assassins are, the more likely they are to succeed, and the more

difficult missions they are able to complete. *Project Legacy* was designed to allow players to send their assassins out on similar missions related to the main plot while away from home, thus gaining experience and increasing their level. “Players could play *Project Legacy* during the day at work, and then come home at the end of the day and play *Brotherhood* in the evening [9].” with their assassins having increased in level since they last played. Through this technique the game achieves “Extend the Story”, “Concurrent Engagement”, “Continual Engagement”, “Create Residual Value”, “Coherent Advancement”, and “Platform Diversity.”

The only principle that could have been better followed is “Standalone Gameplay.” According to Early, his only complaint about the game is “that it relies too much on prior knowledge of *Brotherhood* [9]” in order to understand what is going on in the game. Players can play *Project Legacy* without ever playing *Brotherhood* and still get a singular gameplay experience, however the requirement of previous knowledge about the *Assassin’s Creed* universe has the potential to hinder the “Standalone Gameplay” execution for some players.



Figure 11
Screenshot of *Assassin's Creed Project Legacy* [2]

IV.A.4. *Avengers Initiative*

Game developer Wideload Games was tasked by Disney to create a companion gaming experience for their Facebook game, *Marvel: Avengers Alliance* (Figure 12). According to Patrick Moran, the Creative Director at Disney Interactive Studios who was actively involved in the development of the connectivity between the two games, “Disney/Marvel wanted a way to share a universe. There is a Marvel cinematic universe [and] a Marvel comics universe, so having a separate universe for Marvel gaming came up, and they wanted a piece of technology that would bridge all those experiences [32].”



Figure 12
Screenshot of *Avengers Initiative* [3]

With this focus, Moran and his team set out to create "MarvelXP," a cloud system that directly connects *Avengers Initiative* to *Marvel: Avengers Alliance*, allowing for rewards to transfer from the former to the latter (Figure 13). “The idea for connectivity was there pretty early on,” says John Podlasek, Senior Producer at Wideload Games. “We wanted to build rich content that would tie into *Marvel: Avengers Alliance* [37].” But as is the case with most companion gaming experiences, “figuring out a way to pass awards back and forth was a challenge [32].”

The creation of MarvelXP allowed for Wideload Games to follow multiple principles of companion gaming all at once, including “Create Residual Value”, “Coherent Advancement,” and “Extend the Story.” When users unlock awards in either

Alliance or *Initiative*, their level increases in MarvelXP, allowing for unlockable items and in-game bonus currency to be gained by the player in the *Alliance*. This is an example of the “Cloud Technique” for connectivity being used in a companion game’s design. Currently there are no means of unlocking anything in *Avengers Initiative*. Principles that *Initiative* followed in its own design are “Standalone Gameplay” and “Platform Diversity.” With the creation of MarvelXP, Wideload Games accomplished a means of engaging a player across games via a centralized cloud server that acts as a bridge between games. As a result, it is necessary to re-examine the application of the “Continual Engagement” and “Concurrent Engagement” principles for this companion gaming experience.



Figure 13
Screenshot of MarvelXP [27]

The “Continual Engagement” and “Concurrent Engagement” principles are difficult to define in the *Avengers Initiative* companion gaming experience because *Alliance* and *Initiative* were released six months apart from each other. While no officially published research has been conducted that pertains to player retention in companion games, representatives from companies such as Ubisoft firmly believe that timing is important when it comes to game releases. Steve Carlin, Senior Director of Shopper Marketing and Insights for Ubisoft, states that if the companion game is released too late, focus will have shifted from the base game, and thus brand engagement is not as effective [4].

However, the *Avengers Initiative* companion gaming experience is an outlier when it comes to this way of thinking. While it is possible that the overall *Avengers Initiative* companion gaming experience was hindered by its late release, the fact that the game was meant as an extension of an already connected “Marvel Gaming Universe” may have saved it from harm. MarvelXP was released before *Avengers Initiative*, and thus had already established connectivity between itself and *Marvel: Avengers Alliance*. Fans were already experiencing a form of “Continual Engagement” and “Concurrent Engagement” before *Avengers Initiative* was even released because of the cloud system already in place. With *Initiative*'s release, players could extend their engagement even more, thus building upon these principles. The “Cloud Technique” allows for “Continual Engagement” and “Concurrent Engagement” to be ever-present, arguably eliminating the need for simultaneous release dates of base games and their companions.

In referencing the analysis above, I believe that the “Continual Engagement” and “Concurrent Engagement” principles are present in the *Avengers Initiative* companion gaming experience, because despite it being released six months after its base game, it still engages the player concurrently with the base game and continually over time due to the presence of MarvelXP. As a result, it can be argued that *Avengers Initiative* follows all seven of Early’s principles.

IV.A.5. *Injustice: Gods Among Us iOS*

NetherRealm’s companion gaming experience surrounding *Injustice: Gods Among Us* builds off of the successes of its predecessors. After users had a chance to play the game during user studies, there was overwhelming positive feedback. One user who rated the game a 9 out of 10 liked the game because “it has incentives to make you want to play the game on both platforms.” All of Early’s principles are evident in the design of the game, and users liked how quickly their rewards were available in each game after having gained them.

While *Injustice: Gods Among Us iOS* is essentially the same concept as the base game (with the exception of the simplified fighting mechanics) (Figure 14), NetherRealm allows players to unlock additional costumes, items, experience points, and aesthetic elements for customizable multiplayer badges by gaining achievements in both games separately. One participant from the user study indicated that “this makes playing both games desirable and valuable for advancement in the other.” Connectivity is gained through the “WBID” centralized server, which follows the “Cloud Technique” that

Wideload Games and Ubisoft have used for their respective companion gaming experiences. According to participants, the game's one flaw is that it is not as thorough in its explanations for unlocking rewards as it could be, and is sometimes confusing in what is required in order to so. Despite this, the companion game follows all seven of Early's principles in its design.



Figure 14
Screenshot of *Injustice: Gods Among Us* iOS [23]

IV.A.6. *Mass Effect 3 Datapad* and *Mass Effect Infiltrator*

The companion gaming triumvirate of the base game *Mass Effect 3*, and its companion games *Mass Effect 3 Datapad* and *Mass Effect Infiltrator*, also utilize the “Cloud Technique” in their connectivity, hooking up to Electronic Arts' (EA) "Origin", a digital distribution and digital rights management system. The connectivity between the

three games allows players to boost their “Galactic Readiness” rating anywhere they desire, either on the console for *Mass Effect 3* or on mobile devices in the case of the companion games. The “Galactic Readiness” rating changes the outcome of the base game depending on how great the rating is at the end of gameplay.

The companion games’ design satisfies all seven of Early’s principles, having successfully extended the story, increased brand engagement, and utilized separate platforms. It can also be argued that this companion gaming experience has the most directly obvious use of “Coherent Advancement”, as the “Galactic Readiness” rating increases by a specific percentage for every achievement, which is evident to the player in-game during play.

IV.B. Major Design Features of Companion Games

Major features that were discussed often during interviews were the companion game’s connectivity to its base game and the combination of platforms that made up the companion game-base game relationship.

IV.B.1. Connectivity

In 2009, a year before *Project Legacy* was released, Ubisoft launched “Uplay” alongside *Assassin’s Creed II*. Uplay is a cloud-utilizing multiplayer and communications service designed to allow players to connect with one another and to earn rewards based on achievements in games published by Ubisoft. It also handles digital distribution and digital rights management of Ubisoft games [19]. Uplay

essentially “lives inside” every Ubisoft game, encouraging players to play for longer periods of time. According to Yves Guillemot, Ubisoft’s CEO, “The more you play, the more free goods you will be able to have [19].”

While it is unknown whether this was intended in Uplay’s original design, the system easily opens up opportunity for companion gaming experiences to be developed. *Project Legacy* was the first companion game to take advantage of the already existent connectivity players had with the Uplay account. Since all of Ubisoft’s games are connected to Uplay, it is easy for data to be transferred from one game to another utilizing the cloud-like system.

In June of 2011, EA launched their own cloud system, Origin, which was formerly the EA Store. As mentioned above, Origin also aids in companion gaming, as games like *Mass Effect 3* and *Dragon Age 2* utilizes it for their connectivity. According to John Podlasek, “[Origin] is very powerful. It is taking [EA] a while to find their footing, but they have some powerful stuff in place [37].”

Hinted at by Podlasek above and backed up by Patrick Moran, not all cloud based systems are created equal. In Moran’s opinion, “Uplay is about engagement and retention, while Origin is about monetization. People tend to have a reaction against that [32].” Likewise, Chris Early states that “Uplay was created with a reward system in mind, [while] EA Origin has focused on an e-commerce system more than anything else, at least from an outward appearance [9].” Due to this “money over matter” approach, there has been general negative feedback concerning Origin. Executive Vice President of EA, Andrew Wilson, has stated:

The transaction component of that service has taken a disproportionate amount of the communication and mindshare of what we really try and provide, and the barrier that that puts in between [the player] and the game that [the player] wants to play [36].

Wilson also realizes the pitfalls of its Origin system. As of June 2013, Wilson states that over the next year, EA will seek to “really re-establish Origin as a service to gamers, not as a means to drive transactions [36].”

Many companion games that utilize the "Cloud Technique" require users to register for an online service (i.e., Uplay, Origin, MarvelXP, WBID) before they can play the game in order to allow for efficiently transferring data between the companion game and base game. Figuring out the best way to accomplish this registration can be a challenging task for developers. Moran states that “figuring out how to register a user was very difficult...because having an authentication layer is a real barrier to entry, particularly in mobile [32].” This barrier that is in between the customer and the game they want to play is a difficult element of companion gaming that developers have to overcome. All players really want to do is play their game, and when there are multiple hoops to jump through in order to get them to that point, it sometimes deters players from playing just because it is deemed too difficult. In a society with an ever-increasing “immediate gratification” mentality, developers have to make it easy to connect between the games. The easier it is to connect, the more people will do so [9].

Despite the difficulties inherent in the “Cloud Technique” for connectivity in companion games, from an industry standpoint most developers would agree that the benefits far outweigh those difficulties. When Moran, Podlasek, and their team set out to create MarvelXP as a cloud-based system for *Avengers Initiative*, they looked to the way Ubisoft and EA created their cloud systems for reference, but wanted to “do it in their own way [32].” According to Moran, what sets MarvelXP apart from Uplay and Origin is that the driving force behind MarvelXP was the desire to “build a universe and merge platforms [32].” The universe Moran is referring to is the “Marvel Gaming Universe”, but he also built another universe in the connectivity between Marvel games. Now that the centralized server, MarvelXP, is set up, any future games that Marvel creates already has a direct line to a host of users [32]. Moran states that while the immediate contribution of creating a centralized server like MarvelXP is “hard to define, [the] long term benefits of the project were huge.” Upon releasing a new game, instead of spending time and resources trying to gather a franchise’s fanbase all over again, it is now as simple as sending an email through MarvelXP to the users who are registered with it. “This substantially lowers acquisition costs for new customers [32].”

The most recently published companion gaming experiences have all utilized the “Cloud Technique” for connectivity. NeatherRealm is the latest to use this method by means of Warner Bros.’ WBID, which allows users to connect between both of their *Injustice: Gods Among Us* games. However, not all companion games to use this method have used the “Cloud Technique” successfully. With *Mass Effect Infiltrator*, which uses EA Origin to connect with *Mass Effect 3*, connectivity is often unreliable, at times

failing to even connect to Origin. Throughout the duration of this research, connectivity was achieved less often than not. Unreliable connectivity is the surest way to render what could have been a successful companion gaming experience a failure.

Although the “Cloud Technique” has generally been adopted as the best way to connect companion games with their base games in recent years, this should in no way discount some of the earlier attempts to create connectivity for companion gaming experiences. While it is probable that the connectivity for same-platform companion gaming experiences was difficult to achieve, the games that used the “Direct Technique” were effective in their execution. In *Fable II* specifically, once the player has reached a certain point in the game, the player is given the option to merge their character with their character from *Fable II Pub Games* (including all of the currency and items received) in an almost seamless process that doesn’t require the player to sign up for anything. Similarly, at the very start of *Dead Rising 2*, the game queries whether or not the player would like to transfer the rewards gained in *Dead Rising 2: Case Zero*. If confirmed, the player then gains all the items, currency, and experience points gained in the companion game. This process is also seamless, and requires only a simple push of a button upon game startup.

It should be noted that these two companion gaming experiences lack platform diversity, meaning that both base game and companion game are on the same platform. This is typically the case with games that utilize the “Direct Technique”. Had the opposite been true, then connectivity might not have appeared as seamless, and player perception is important to the player as well as developers. During one user study for

Fable II and *Pub Games*, the participant stated that the data transfer seemed very simple and quick. Even if the data transfer between *Fable II* and *Pub Games* was extremely difficult to achieve and involved painstakingly intensive research and long hours of hard work by the developers, the fact that it seemed simple and quick to the player is desirable. As mentioned before, “The easier it is to connect, the more players will do so [9].”

Reciprocal connectivity is another feature that can be found in companion gaming experiences, and involves both the companion game and base game “speaking” back and forth to each other, not just one way. Reciprocal connectivity allows players more options than one-way connectivity, causing the player to be continually interested and engaged. In *Injustice: Gods Among Us*, for example, players can unlock in-game items in the base game by playing the companion game, and vice versa (Figure 15). Often, this blurs the lines between which game is the base game and which one is the companion. Both versions of *Injustice* have equal opportunity for unlockables, only one is mobile and the other is “landlocked” to a console. For example, a player could play the iOS version of *Injustice* while riding the subway to and from work and during their lunch break, unlocking a new “Batman Beyond” costume for the Batman character in the console version. Then, when that same player gets home from work, he or she could play the console version of *Injustice* and unlock a “25,000 Power Credits” bonus for the mobile version that the player can spend while he or she plays it on the subway to work the next day. One user study participant notes that this kind of connectivity also makes the play life of the companion gaming experience longer. Another participant states that

this kind of connectivity creates “value that is important because I want to know I am getting my money’s worth...I like to play back and forth on them, again and again.

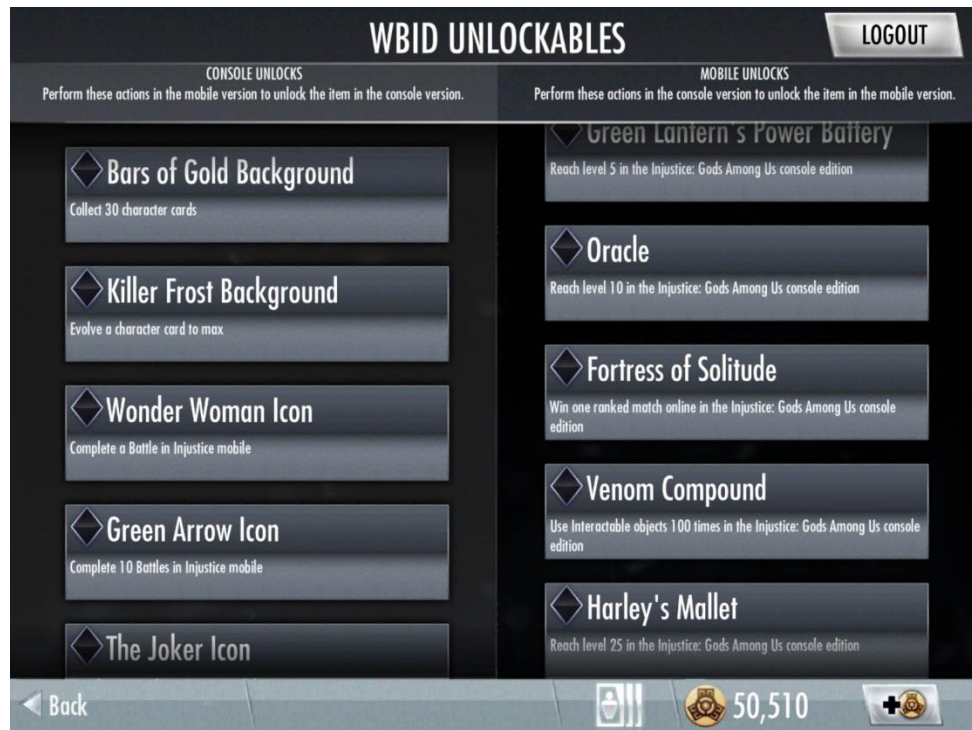


Figure 15
Screenshot of rewards screen in *Injustice: Gods Among Us iOS* [23]

Dead Rising 2: Case Zero is an example of non-reciprocal connectivity. Once the companion game is beaten and data is transferred to the base game, there is nothing left for the player to do in the companion game. According to Christian Svensson, “In an ideal companion game world, the two games can speak back and forth to each other, not just one way [42].” This is one of the reasons he would not consider *DR2: Case Zero* to be a true companion game.

IV.B.2. Platform Combinations

IV.B.2.a. Console-Console

When initially thinking about which platforms to create a companion gaming experience for, developers have much to consider. Intended audience, accessibility, connectivity issues, and whether or not a brand “fits” a specific platform are all factors that need to be considered before deciding on a platform. When companion gaming first came on to the scene in 2008, *Fable II* and *Fable II Pub Games* were both released for Xbox 360. Since then, there have been very few companion games to be released for the same platform as their base game.

There are mixed views on whether or not same-platform companion gaming experiences, specifically **console-console** in this case, are effective in general. Some user study participants thought that the companion game would have been more successful on a separate platform because the base game is a lot more fun and desirable to play, thus deterring anyone from spending time with a less fun companion game on the same platform. Other participants disagreed, stating that having the games on the same platform “made things easier and faster to switch from one to the other.” Interestingly, some industry professionals agree that platform diversity is not as important, while others believe that platform diversity is required to be considered a true companion gaming experience [22, 26].

In spite of the mixed views, the same-platform approach to companion gaming causes no harm to the gameplay experience on its own. “Once *Fable II* came out, *Pub*

Games use actually increased, not decreased [9],” says Chris Early. Likewise, Christian Svensson said that they were worried about people thinking they had gotten enough of the *Dead Rising 2* experience through *Case Zero* and wouldn’t be interested in the actual game. What they found was the exact opposite. “We attracted a lot more people than we otherwise would have without that approach [42],” says Svensson.

IV.B.2.b. Console-Web

A platform combination that was more prominent in the early years of companion gaming is the **console-web** combination. Companion gaming experiences that fall under this category include *Fable II*’s other companion game *A Hero’s Tale*, *Toy Soldiers/Toy Soldiers Match Defense*, *Assassin’s Creed:Brotherhood/Project Legacy*, *Dragon Age 2/Dragon Age: Legends*, *Ghost Recon Future Soldier/Ghost Recon Commander*, and most recently, *BioShock Infinite/BioShock Infinite Industrial Revolution*. Many of the aforementioned companion games were found on Facebook, but have since been taken offline and are unavailable to play anymore. In fact, most web-based companion games are surprisingly short lived. *Project Legacy* seems to have been the longest lasting Facebook companion game at two and a half years online, though it was plagued with bugs and connectivity issues for much of its final year online. *Dragon Age: Legends* was online for a little over a year before it was switched over to a downloadable single-player game, and *Ghost Recon Commander* lasted a mere six months before it was canceled and its development staff laid off [45].

Reasons for why these web-based companion games, especially on Facebook, have such short life-spans are varied. A report published by Cowen and Company states that interest in Facebook-based games is decreasing dramatically as more casual gamers migrate to mobile platforms [40]. One can also postulate that due to the need for diverting resources to new projects, many of these games fall by the wayside in order to make room for new, more profitable endeavors, such as in the case for *Assassin's Creed: Project Legacy*. Others seemed to have simply run their course and “died of old age”, such as for *A Hero's Tale*, which ran for nearly four years. The developers behind *BioShock Infinite: Industrial Revolution* appeared to take these issues into consideration in its design, as it was only available to those who pre-ordered the base game, and will only run until six months after the base game was released. Overall, it seems as though the console-web combination for companion games is one to carefully consider by publishers before developing, because often the games are either short-lived, plagued with issues, or narrow in scope.

IV.B.2.c. Web-Mobile

As of the time of this research, the only companion game to utilize the **web-mobile** platform combination is Wideload Games' *Avengers Initiative*. This is because pursuing this kind of combination is high risk [32]. As mentioned before when discussing Ubisoft's experiment with *Project Legacy*, there is a large gaming market on Facebook and a lot of cross-pollination between the Facebook and mobile markets [37].”

When approaching the design for this sort of platform combination, there was much to consider. Patrick Moran states the following:

Audience and play patterns are very different for Facebook-to-mobile than just a bunch of console games talking to each other. The Facebook crowd is playing at work, and they're really hard core sitting there at their desk. On the mobile side, you tend to be playing...in transit or waiting in line...[Mobile gameplay] breaks away from the PC and console pattern of play. You end up with two to three minute play sessions eight times a day, rather than one 40 minute play session once at night. That changes the willingness for going outside the normal game loop and engaging in these meta-games [32].

Due to the unfamiliar nature of creating a companion gaming experience that appeals to both the Facebook and mobile gaming markets, Wideload Games was taking a risk in what they were hoping to accomplish. Unfortunately, they didn't see nearly as much crossover as they were expecting between the markets.

We could get a lot of people who played Avengers Initiative to sign up for MarvelXP, and we could get a lot of players who played Avengers Alliance to sign up for MarvelXP, but getting players to bridge the gap between the two games was actually quite hard...They are really two different types of players [32].

This point is supported by one user study participant, who noted that “the touchpad of mobile devices is a significantly different experience than the point-and-clicking of the Facebook game.” Despite this, Moran and his team still view their endeavor as a success because they “saw their highly engaged and enthusiastic audience stick around longer, feel more engaged, and definitely care about the universe [32]” they were trying to build.

IV.B.2.d. Console-Mobile

The last and best platform combination according to Chris Early is **console-mobile**. Companion gaming experiences included in this category are *Crackdown 2/Crackdown 2: Project Sunburst*, *Fable III/Fable III Kingmaker*, *Fable III/Fable: Coin Golf*, *Mass Effect 3/Mass Effect Infiltrator*, and *Injustice: Gods Among Us/Injustice: Gods Among Us iOS*. The reason that Early views this platform combination as the best is that it provides the most efficient opportunities for brand engagement. The previously given example (section B1 of this chapter) of players unlocking extra rewards in the mobile version of *Injustice: Gods Among Us* while on the go is a good example of this kind of engagement. Publishing a companion game to the mobile market is an ideal way to give players easy access to the brands they love while also allowing them to progress in the console games when they can’t wait to get home and play.

CHAPTER V

RESULTS

Throughout this research, Chris Early's Seven Principles have been repeatedly referenced when discussing companion game design. While Early's principles are thorough (indeed, Christian Svensson states that "Early covers [companion game design] principles fairly well [42]"), I believe after extensive research of detailed accounts of the various design processes for many different companion gaming experiences that the principles should be altered slightly to better reflect the current state of the companion gaming industry.

V.A. New Principles of Companion Gaming

In an interview conducted by myself, Chris Early stated that he would like to change his first principle, "Extend the Story", to "**Extend the Lore**," because while the story doesn't necessarily have to be extended to make a successful companion game, the lore (the universe designed around a franchise) should be extended beyond that of the base game. I would take this a step further, and change the principle to state, "**Expand the World**." Every video game that is created offers the player some kind of "world" to invest in. Whether it is *Assassin's Creed*'s fictional-yet-historical settings, *Fable*'s mystical kingdoms, or the "Marvel Gaming Universe" set up by MarvelXP, the characters, locales, and mythology that developers create are incredibly important for player engagement. While the term *world* is often interchangeable with the term *lore* in

the video game industry, I think the important difference between Early's principle and mine is the word, "expand." When creating a companion game, developers should seek to expand the world that they have created beyond the scope of just the base game, but not just by extending it linearly, but by expanding it three-dimensionally in all directions. Of course, the concept behind the principles is similar, but the terminology is better suited for visualizing more extensive companion gaming experiences that spread out in diverse ways to multiple platforms. Developers must make sure the companion game adheres to the same boundaries as the world of the base game, however. If the companion game doesn't exist inside the world that has been created, then it doesn't aid in increasing brand engagement.

All of Early's other principles are sufficient in their original forms. "Concurrent Engagement" and "Continual Engagement" are ideal because they lend themselves to a longer companion gaming experience lifespan and higher player retention, but some companion games have been successful without following these particular principles, such as *Case Zero* and *Fable III Kingmaker*. "Create Residual Value" and "Coherent Advancement" are also important, because without reward and effective communication of those rewards to the player, companion games are likely to be seen as inconsequential and unnecessary, neither of which are desired responses to a product. "Standalone Gameplay" is considered the most important principle by both Chris Early and Christian Svensson, as mentioned previously. As such, it remains on this list as something that should be strived for. "Platform Diversity" is a principle that seems to have been

universally regarded as significant by developers in recent years, as there hasn't been a same-platform companion gaming experience developed since *Dead Rising 2* in 2010.

Two new principles I have added to this list are “**Easy Connectivity**” and “**Reciprocal Connectivity**”. The former is important because adding an authentication layer is a barrier to entry, especially in mobile games. This does not mean that having an authentication layer is bad, but the less work the player has to do and the fewer obstacles to overcome, the more players will want to play.

"Reciprocal Connectivity" has been discussed previously, and is on this list because in order to develop a more effective companion gaming experience and extend its life span, it is ideal for both the base game and the companion game to speak back and forth to each other. If the companion gaming experience is built on a mobile device, then “Reciprocal Connectivity” creates a cyclical effect that essentially follows the player around wherever he or she goes.

To summarize, I have extended Chris Early's Seven Principles to nine, and established the “Companion Gaming Design Principles,” which are as follows:

1. **Expand the World:** The companion game should effectively expand the lore/world established by the base game.
2. **Concurrent Engagement:** The companion game and the base game should engage the player during the same period of play.
3. **Continual Engagement:** The companion game should continually engage the player over time.

4. **Create Residual Value:** The companion game should offer value to the player that can be transferred to the base game.
5. **Coherent Advancement:** Any progress made in the companion game by the player should be evident in the base game.
6. **Standalone Gameplay:** The companion game should be able to stand on its own, apart from the base game.
7. **Platform Diversity:** The companion game should exist on a separate platform from the base game, but only if the experience benefits from the separation.
8. **Easy Connectivity:** The companion game should be easy to access, with as few obstacles to the player as possible.
9. **Reciprocal Connectivity:** The companion game and the base game should be able to transfer data back and forth between each other.

The “Companion Gaming Design Principles” will provide developers who desire to create companion games with a list of best practices to consider during development.

Included in this research is a table that lays out key examples of companion games in this research and their application of each of the “Companion Gaming Design Principles” (Table 3).

Table 2
Companion Gaming Design Principles Application Chart

	Expand the World	Concurrent Engagement	Continual Engagement	Create Residual Value	Coherent Advancement	Standalone Gameplay	Platform Diversity	Easy Connectivity	Reciprocal Connectivity
Fable II Pub Games	Yes	Yes	Yes	Yes	Yes	Yes		Yes	
Dead Rising 2: Case Zero	Yes			Yes	Yes	Yes		Yes	
Assassin's Creed: Project Legacy	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Avengers Initiative	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Injustice: Gods Among Us	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mass Effect Infiltrator	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes

V.B. Player Engagement

Of course, all of the previously mentioned information is rendered worthless if the companion gaming experience itself does not live up to player expectations. While elements of successful game design (i.e., “Flow”, challenge, fun, play, immersion) are not a part of this research, it goes without saying that if the games that make up a companion gaming experience are not well made or seriously flawed, then the companion gaming experience will ultimately fail.

During the user studies conducted for this research, players were asked to rank the companion gaming experience that they were playing on a scale of 1-10, with 10 being the highest. The *Injustice: Gods Among Us* companion gaming experience followed all of Early’s Seven Principles in its design, and received an average user study score of 8. The *Dead Rising 2* companion gaming experience, which followed only four of Early’s Seven Principles, received the same average rating in user studies. Furthermore, *Injustice: Gods Among Us iOS* received an average score of 66.82% out of 100% from 11 different reviews from accredited online video game critics. *Dead Rising 2: Case Zero* received an average score of 82.50% from 41 accredited reviews.

Clearly, simply following the principles does not always beget a more successful companion gaming experience than one that does not. There are other factors that go into creating an engaging companion game than just completing a checklist. Good design and effective execution are critical, as it always has been and always will be for creating successful video games.

V.C. Case Study: *Titan, Ph.D.*

After gathering and analyzing all the data obtained from interviews, user studies, and observation, a user study was conducted of my original companion gaming experience, *Titan, Ph.D.* This project consists of the base game, *Titan, Ph.D.*, and its companion game, *Titan, Ph.D.: Archives*. Both games were created for the Apple iPad using Unity iOS. As a result, the “Direct Technique” for companion game connectivity was used, as well as a brand new platform combination, **mobile-mobile**. Augmented virtuality components were utilized in the creation of the companion game.

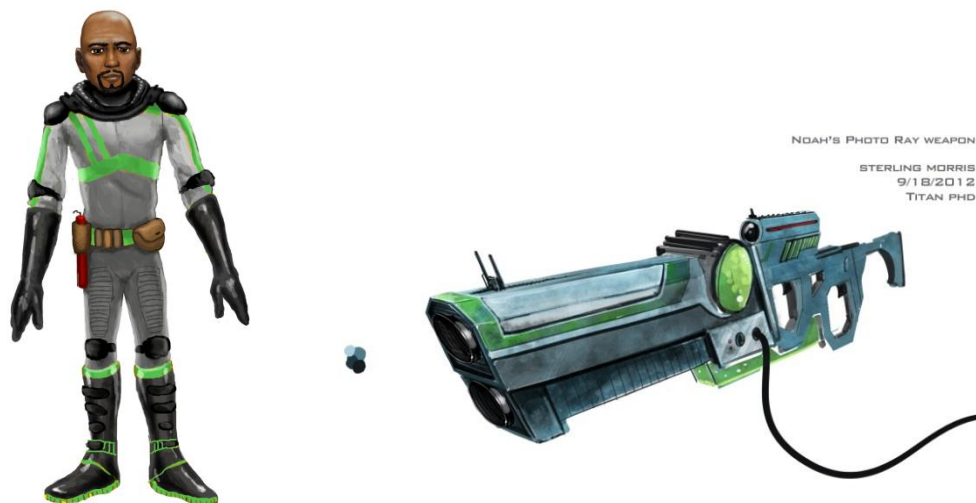


Figure 16
Concept art for *Titan, Ph.D.*

Development of the base game, *Titan, Ph.D.*, began in August 2012 with a team of six people. I acted as Producer on the project and helped out in most areas of the

pipeline, with the other team members responsible for modeling, texturing, rigging, animating, lighting, and programming, among other things. Production on the game completed in May 2013, with the team having expanded to nine by the time development ended.



Figure 17
Concept art for environments in *Titan*, *Ph.D.*

The project was supervised by industry professionals Andre Thomas, Head of Graphics for Football at EA Sports, and Sergio Rosas, owner and Art Director at CGBot. They were instrumental in the early stages of pre-production, offering advice and guidance for how to go about setting up a project of this kind. Our team would have conference calls with them over Skype periodically as well in order to get feedback from them on our progress.



Figure 18
Screenshots of *Titan, Ph.D.*

The game itself is about a lone space biologist, Noah Boxx (Figure 16), and his one-man mission to save the creatures of the dying planet Xion before it is destroyed (Figure 17). Using his trusty Bio-Rifle, Noah can stun creatures with an energy blast, and then "beam them up" to his ship, the *Ark*, for safekeeping until he can escape the planet with them. Players move the character by tapping the touchscreen of the iPad and capture creatures by swiping across them to stun them and then pressing the blue teleport button to send stunned creatures back to Noah's ship. The game is an arcade-style sci-fi adventure game, in which players are given a specific length of time to complete their mission (Figure 18). The round ends either when the character dies or when time runs out and Noah escapes. The goal is to capture as many creatures as possible before time runs out and the planet is destroyed. A high score is given at the end of each round, in which the game tallies up points based on number of creatures captured and, if applicable, how much time was left over. Points are deducted if the player kills a creature instead of capturing it.

The world that we have created consists of many original elements, including creatures, items, and mythology. There are three different types of creatures in the game: the swift, vicious pack-hunting Velox-Mortis (Figure 19), the rhinoceros-like grazer Cerhylodon, and the monstrous troll-like Borgoll. Each creature has a unique AI that allows them to swarm, charge, attack, and chase the player. The player uses the crystalline mineral Tonitrite to charge his Bio-Rifle, and the player must collect more if he or she runs out. There is also an extensive mythology written that includes the backstory for the people living on Xion, the reasons for why the planet is dying now, and the profiles of characters and creatures.



Figure 19
Sketch for Velox-Mortis creature in *Titan, Ph.D.*

The base game was exhibited at the end-of-year graduate student work exhibition for Texas A&M's Department of Visualization (Figure 20). There was a majority of positive response to the game, with many people who played asking when and if they

could purchase the game on the App Store. People seemed to thoroughly enjoy the original game mechanics, the thought that went into creating the mythology, and the arcade-style high score system at the end of each round. Multiple people came back a second or third time to make sure their high scores had not been replaced by someone else's. Our team did learn that there was a bit of a learning curve to the game, as it usually required a person to play a couple of rounds before they were equipped enough to handle the fast-paced nature of the game. Overall, we consider the project a success, and are proud of the finished product.

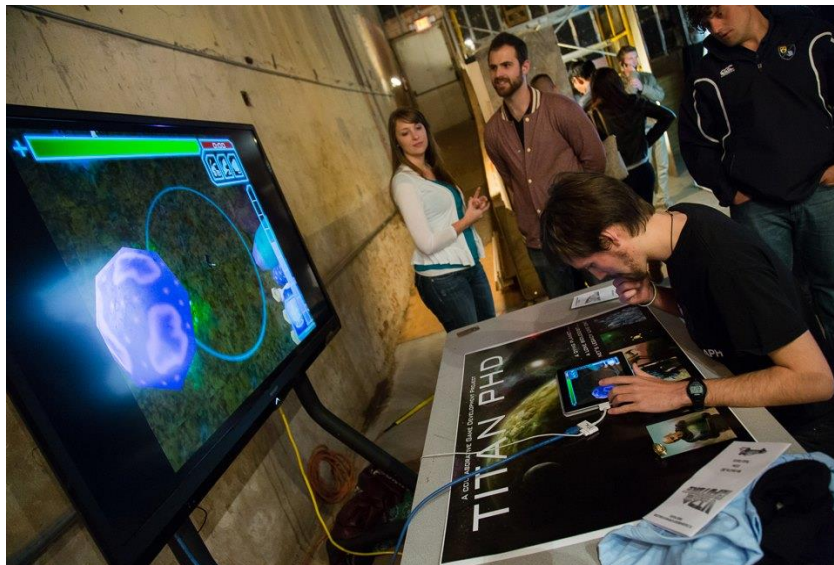


Figure 20
Titan, Ph.D. being played at exhibition

V.D. Companion Game

The companion game, *Titan, Ph.D.: Archives*, began development during production of the base game. *Archives* was created to give player access to the

aforementioned mythology on the backstory of the characters, creatures, and other elements in the game. Players are able to cycle through “files” on elements such as Noah Boxx, the planet Xion, the various creatures, and Noah’s ship (Figure 21). They are also able to view the credits of the people who worked on the game.



Figure 21
Screenshot of *Titan, Ph.D.: Archives*

There is another section of the game called the “card reader” (Figure 22). In this section the player can place one of the physically made cards on a specifically defined section of the iPad screen. The game will then recognize which card is on the screen, and display bonus content that correlates with the subject of the card. Additionally, the next time the player completes the base game, bonus points will be added to the final score depending on which card was utilized. Through this process, the principles of “Expand the World”, “Continual Engagement”, “Concurrent Engagement”, “Create Residual

Value”, “Coherent Advancement”, and “Easy Connectivity” are all present in the game’s design. It can be argued that “Standalone Gameplay” is also present, because the card reading functionality still is able to stand on its own without the base game. However, without the context of the base game *Archives* is little more than a fancy encyclopedia app. Principles that were left out of the game’s design were “Platform Diversity” and “Reciprocal Connectivity” due to a lack of resources, design decisions, and time available.

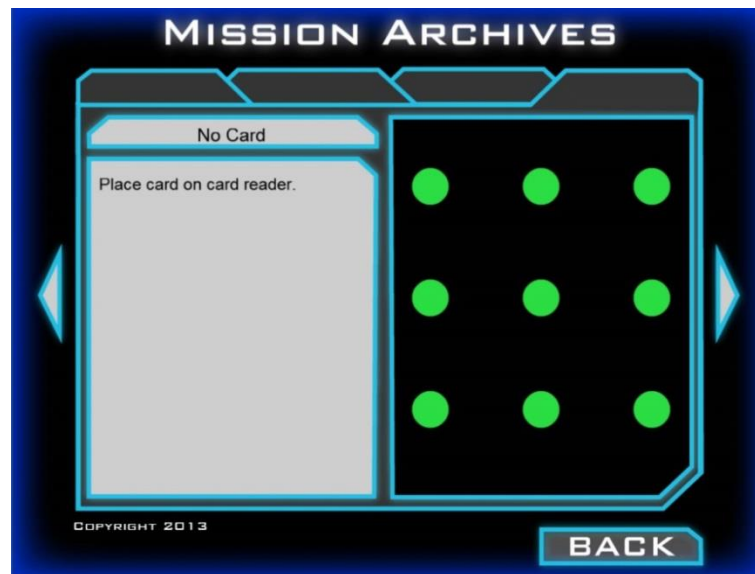


Figure 22
Screenshot of “card reader” section of *Archives*

The physical cards were made from a variety of materials (Figure 23). Artwork was printed out and sandwiched between two plexiglass sheets to make the card, whose edges were then wrapped around with copper tape to act as a conductor for the player’s

fingers that would grip the edges of the card. Three small circular pieces of conductive fabric were adhered to the bottom side of the card to interact with the surface of the iPad itself. There are nine small sensor areas in the card reading section of the *Archives* game (see Figure 22) that are organized in such a way that it can recognize different arrangements of the conductive fabric (as long as they are placed in the correct positions). By arranging the pieces of conductive fabric in different ways on the back of the card, the game can recognize which card is being placed on the screen.

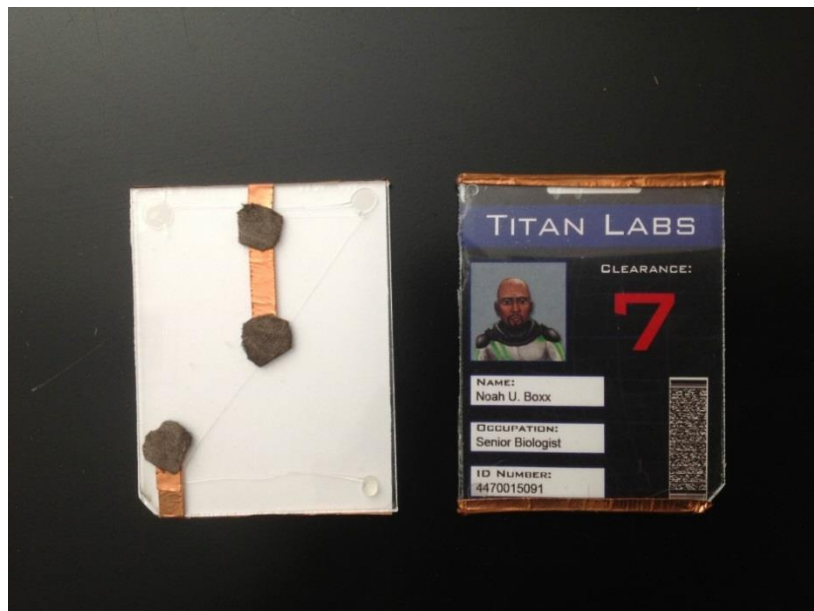


Figure 23
Back and front sides of physical cards used for *Archives*

The user studies that were conducted for this companion gaming experience followed the same methodology as for the pre-existing games, and reactions to the game

were mostly positive. One participant liked the concept of adding “mini-expansions” to the base game through new content provided by new cards. Participants also thought the biographies, fictional journal entries, and other extra content provided by the cards were engaging and interesting, and felt that after reading through the archives they felt “a lot more involved in the game than when [they] were simply trying to earn points.

Negative responses to *Archives* seemed to stem from the inconsistency of the card-reading functionality and the desire for more rewards. According to users, the cards were “slightly finicky at times” and they “would prefer to have seen a more tangible difference in the actual game from the cards,” rather than just bonus points at the end of each round.

CHAPTER VI

CONCLUSIONS AND DISCUSSION

As a direct result of this research, a list of best practices through the “Companion Gaming Design Principles” has been compiled by building off of Early’s Seven Principles. This new list of principles can provide developers with a guide to follow that will allow them to create the most effective companion gaming experiences possible. This research also provides an amalgamation of existing knowledge on companion games gathered from interviews with industry professionals, user studies, and observation, so as to offer developers and researchers a source of information for what came before. In addition, it also defines how companion gaming improves the overall quality of the gaming experience.

VI.A. Conclusions

One way that companion gaming, when executed effectively, can improve the quality of the gaming experience is by expanding the “world” of the franchise beyond just the base game. While video games can be successful on their own, expanding the world that developers work so hard to create provides the player with more opportunities to interact with their favorite brands. In turn, more opportunities for interaction also increase brand engagement by the player. They are not restricted to one room, machine, or time of day to engage with their beloved properties; they now have access to these properties in any number of various locales, times, and platforms.

With the increase in number of opportunities to interact with a brand comes an increase in ways to progress through a game. By providing multiple avenues for advancement, the experience allows for a player to customize their gameplay experience, giving them a degree of choice in an otherwise linear progression.

Another way that companion gaming improves the quality of the gaming experience is that it extends the life-span of the base game. Some companion games introduce new chapters into the story established in the base game (i.e., *Dead Rising 2: Case Zero*), others act as “mini-games” that feed into the base game (i.e., *Fable III Kingmaker*, *Fable: Coin Golf*), and others offer similar experiences on different platforms (i.e., *Injustice: Gods Among Us iOS*). These facets of companion gaming prolong the overall longevity of a game, allowing players to interact with the brand for longer periods of time, and more often.

The industry professionals that were interviewed for this research all touched on the fact that the decision to pursue a companion gaming experience rather than a standalone game stemmed from the desire to increase their brand’s engagement. According to Chris Early, this also leads to increased monetization, which is beneficial for game developers and publishers alike. “In general, more engaged players consume more and pay more...but only if it is a good game [9].” Likewise, increased brand engagement equates to higher player retention. One of the participants for the *Titan, Ph.D.* user study believed that by switching from the companion game to the base game, the experience was able “to keep [his] attention longer than either would alone.” This is the kind of retention that studios desire. According to Patrick Moran, “the longer you

stick around, the more money you spend. Retention is one of the major pillars of driving monetization [32].” Based upon this research, it can be argued that companion gaming has the potential to revolutionize the gaming industry not only through increased monetization, but how developers approach game design as a whole.

VI.B. Implications

While the implications for the gaming industry are substantial, an area of research that has yet to be explored is how companion gaming can benefit other gaming spheres, such as gaming for education and gaming for military training. If players can now interact with their favorite franchises on the go, can students interact with their favorite subjects in school in the same manner? Once summer break arrives, many students simply cease to retain anything that they just finished learning for an entire year [33]. Could educational companion gaming experiences be created that would help students to enjoy and benefit from educational material even after school has been let out for summer vacation, thus allowing for more retention of previously learned material?

In the same fashion, studies have shown that military trainees who have trained using military training simulator games do better in their training than those that don't [22]. Could companion games or apps to those simulators help train military hopefuls even after they have shut down the computer? These questions are worth answering, but are beyond the scope of this research.

VI.C. Limitations

This research faced some limitations throughout its duration. For example, it was not possible to conduct an exhaustive review of every companion gaming experience in existence. To play through every companion gaming experience myself would have required an unreasonable amount of time, money, and resources, thus the games that were not able to be analyzed personally or through user studies were analyzed via game reviews and interviews with industry professionals.

Some companion gaming experiences were not able to be played due to unfortunate circumstances. Some games, such as *Crackdown 2: Project Sunburst*, have already been pulled from the market and are not available to play anymore. Some games require a device or console that was not accessible during the course of this research, such as *Fable: Coin Golf* on Windows phone. Some games are not presently playable in their original form, such as *Dragon Age: Legends*, which was originally released on Facebook but now is only available in digital download form as an executable file. The game is still available to play, but experiencing the companion gaming experience in its original form was important to the research being conducted.

While all leads were extensively pursued, interviews with industry professionals were difficult to acquire due to conflicting schedules or unresponsiveness. Other contacts within the gaming industry were able to aid in the pursuit of interviews with industry professionals, specifically people who actually have worked and/or are working on companion gaming experiences, although there were several dead ends that did not result in an interview, and had to be abandoned.

The companion gaming experience I helped to create, *Titan, Ph.D.*, (while treated as a serious project) did not necessarily have the polished look and feel that professional studios with more extensive resources are able to accomplish. This could have affected user study participants in their responses in the survey. Though the survey only dealt with the application of the **Companion Gaming Design Principles** to my game, the lack of professional quality still could have influenced the outcome.

The concept of companion gaming is fairly new, only becoming prominent in the last few years. As a result of this, there is very little literature available on the subject. Even what I was able to find was not academically published research, but rather analysis and observation from an industry perspective. Though this was a limitation to my research, I found it beneficial in that what I am researching will aid those who seek to research this topic in the future.

VI.D. Future Directions

The companion gaming experience phenomenon does not stagnate here. With the recent and soon-to-be releases of next generation consoles from Nintendo, Microsoft, and Sony, and new "second screen" experiences such as Microsoft's SmartGlass, companion gaming is only going to improve and establish itself further into our society.

With the release of Nintendo's newest console, the Wii U, in November 2012 came the exposure of second screen experiences to a wider audience (Figure 24). As the popularity of the Wii U grows, the popularity of second screen gaming is likely to grow as well. Microsoft's SmartGlass was developed for the sole purpose of creating second

screen experiences for its newest console [35]. The SmartGlass is a type of tablet that can connect to an Xbox console, allowing consumers to control their console with the tablet, among other things [26]. Most likely, this functionality will extend to gaming as more developers get used to the new hardware. Entertainment website and accredited game critic IGN claims that “second screen gaming is probably 2013’s biggest battleground.”



Figure 24
Example of second screen gaming [26]

Many developers have already broken ground in this area. Ubisoft, the same developer who created the *Assassin's Creed* franchise, has an upcoming game called *Watch Dogs* that will release in 2013 that utilizes second screen technology [35]. Using their tablets, players will be able to check out floor plans of any building their character is in, buy in-game weapons, and follow friends in real time as they complete their

missions. Players will even be able to aid their friends in their missions by rerouting traffic to make a getaway easier after a heist [35]. The game, *Planetside 2*, developed by Sony Online Entertainment, follows a similar strategy with their companion gaming experience [35].

While a tablet companion game that is designed to be played simultaneously with the base game on the console could be fun, it could also be very distracting. That particular companion gaming experience would definitely be utilizing the “Concurrent Engagement” principle, but it causes one to question if there is such a thing as too much concurrent engagement. The focus on the second screen initiative is not viewed by all as good news. Christian Svensson states:

I'm a bit of a skeptic of the SmartGlass initiative...Companion gaming is a separate experience...that hits Chris Early's principles. That is absolutely the future of how that sort of connectivity happens. What I do not think is the future is having a second screen that I have to interact with when I put down my controller...Somehow all of a sudden I have another input device I have to work with. The second input device is a distraction for the player [42].

Likewise, Chris Early agrees, “people will start off developing on the SmartGlass, but then will realize that you can do more as you walk away from the console (Early interview).” Early does concede that with the second screen causes developers to think of companion gaming as a viable option [10].”

The increase in game development that utilizes the second screen begs the question, is there such a thing as too much companion gaming? Despite a rising concern for spending too much time in front of a screen and health warnings urging players to step away from their games every once in a while, publishers and developers seem to be constantly researching new ways to keep their consumers playing their games [35]. The question arises, “should publishers be developing games that are designed to keep players in front of their screens for longer periods of time?” These are questions that deserve answering, but are beyond the scope of this thesis.

It would be beneficial in the future to research just how much each of the different principles from the “**Companion Gaming Design Principles**” affect the companion gaming experience. Many of the newest and upcoming games that have a companion gaming component seem to focus on the “Concurrent Engagement” and “Continual Engagement” principles that Early deemed important. However, there also seems to be a heavy focus on social components, such as digitally sharing items and scores with friends [35], something that Early does not mention in his principles, nor I in mine. A social component to any game is a design choice, but is not required for successful companion game design.

As gameplay becomes increasingly connected, “the idea of ‘what is a console’ vs. ‘what is a phone’ vs. ‘what is a tablet’ is getting fuzzier [32].” With amplified connectivity comes blurred lines of what role each platform is supposed to fulfill. Regardless of what trajectory the gaming industry is on, the industry professionals

interviewed in this research are of the same mind. Increased connectivity between different gaming experiences based on the same brand is the way of the future [37].

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APPENDIX A

INTERVIEW QUESTIONS FOR INDUSTRY PROFESSIONALS

- 1) Where did companion gaming first get its name? When did it start?
- 2) What are the different categories of companion games?
- 3) Describe the steps for designing the companion gaming experience you worked on. What were some of the challenges you faced in designing the relationship between the base game and the companion game?
- 4) What would you say are the most important companion gaming principles, if any? Have these principles changed in recent years?
- 5) What would you say are the key titles in companion gaming that I should focus on in my research?
- 6) In your experience, which platform combinations provide for the best companion gaming experiences?
- 7) With next-gen consoles coming out and inventions such as SmartGlass coming into existence, what would you say the future of companion gaming looks like?
- 8) What references did you look to in designing the connectivity for your companion gaming experience?
- 9) What kind of testing or user studies were done to see if this was an idea worth pursuing?
- 10) What research do you think would benefit publishers when designing companion games?

APPENDIX B

RECRUITMENT REQUEST FOR USER STUDIES

To whom it may concern,

I am seeking individuals who are interested in video games to participate in a user study of companion gaming experiences. Participants should have experience playing many games of many different varieties, particularly on the Xbox 360 console and the iPad.

The time commitment for participating in the user study is approximately 1 hour per week for 3 weeks. No personal information will be needed, but participants will be asked to fill out surveys detailing their experience during the study. If you are interested in being a part of this study, please contact me at **insert email here** by **insert date here**.

Thank you for your time,

Jake Ross

APPENDIX C

SURVEY QUESTIONS FOR USER STUDIES

- 1) What were your overall thoughts about the companion game itself?
- 2) Which aspects of the companion game's connection to the base game were appealing?
- 3) What could have made the experience better?
- 4) In your opinion, on a companion game success scale of 1-10 with 10 being the highest, please rate the companion gaming experience. Explain your reasoning in as much detail as possible.

Below is a list of Chris Early's Seven Principles. Please describe your thoughts on each principle's use in the companion game's design. Please include in the description your thoughts on the effectiveness, necessity, and relevance of the principle as it pertains to this specific companion game. If the principle is not applicable to the companion game, write N/A and move on.

- Extension of Story - *The companion game should exist in the same lore/world as the base game.*
- Concurrent Engagement - *The companion game and the base game should engage the player during the same period of play.*
- Continual Engagement - *The companion game should continually engage the player over time, not just once.*
- Create Residual Value - *The companion game should offer value to the player that can be transferred to the base game.*

- Coherent Advancement - *Any progress made in the companion game by the player should be evident in the base game.*
- Standalone Gameplay - *The companion game should be able to stand on it's own, apart from the base game*
- Platform Diversity - *The companion game should be on a separate platform than the companion game.*